DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
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Contract #: 04-0120F4
Cty: SF/Ala Rte: 80 PM: 13.2/13.9
File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-016444
Date Inspected: 17-Aug-2010

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island

OSM Arrival Time: 1900
OSM Departure Time: 700
Location: Shanghai, China

CWI Name: See below

Inspected CWI report:	☐ Yes	☑ No	☐ N/A	**CWI Present:**	☑ Yes	☐ No	
Electrode to specification:	☑ Yes	☐ No	☐ N/A	**Rod Oven in Use:**	☑ Yes	☐ No	☐ N/A
Qualified Welders:	☑ Yes	☐ No	☐ N/A	**Weld Procedures Followed:**	☑ Yes	☐ No	☐ N/A
Approved Drawings:	☑ Yes	☐ No	☐ N/A	**Verified Joint Fit-up:**	☐ Yes	☑ No	☐ N/A
				Approved WPS:	☑ Yes	☐ No	☐ N/A
				Delayed / Cancelled:	☐ Yes	☑ No	☐ N/A

Bridge No: 34-0006
Component: Tower and OBG Components

Summary of Items Observed:

On this date Caltrans OSM Quality Assurance Inspector (QA Inspector) George Goulet was present during the times noted above for observations relative to the work being performed.

Bay 9

This QA Inspector randomly observed the following work in progress in Bay 9:

Deck panel 14W-DP3174(PL3487A)-001 was positioned on the #1 welding table and the SAW cover pass appeared to have been completed. Weld number DP3174-001-008 appeared to have been restarted at Y=8500mm and weld number DP3174-001-007 appeared to have been restarted at Y=8050mm. ABF Representative CWI Huang Wen Guang informed this QA Inspector that the SAW power supply for welding position 3 had caught fire during the production run of these 2 welds and the power supplies for welding positions 3 and 4 were shut down. The SAW pass for these 2 welds was apparently finished at a later time. This QA Inspector performed a random inspection of the welds from the above noted Y coordinates to the ends of the welds and observed no apparent indications. See photos below.

Bay 11

This QA Inspector randomly observed the following work in progress in Bay 11:

SMAW welding of weld joint ESD1-TL5-2B/F-4B located on PCMK east tower, lift 5, internal connection plates. Alternating welders were identified as 046704, 040656. QC was identified as ZPMC CWI Liu Yang (QC1). Assisting QC1 at this location and appearing to be monitoring the welding and recording data was ZPMC QC

Shao Hai Lang (QCA1), who was not a CWI. Welding variables recorded by QCA1 appeared to comply with WPS-B-T-3213-TC-U5b.

SMAW welding of weld joint ESD1-TL5-2B/F-10 located on PCMK east tower, lift 5, internal connection plate to skin E. Alternating welders were identified as 046704, 040656. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was QCA1, who was not a CWI. Welding variables recorded by QCA1 appeared to comply with WPS-B-T-3213-TC-U4c.

SMAW welding of weld joint ESD1-TL5-2B/F-8A located on PCMK east tower, lift 5, internal connection plate to skin E. Welder was identified as 054460. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was QCA1, who was not a CWI. Welding variables recorded by QCA1 appeared to comply with WPS-B-T-3213-TC-U5b.

SMAW welding of weld joint WSD1-TL5-4B/F-14A located on PCMK west tower, lift 5, internal connection plates. Alternating welders were identified as 037780, 037743. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was QCA1, who was not a CWI. Welding variables recorded by QCA1 appeared to comply with WPS-B-T-3213-TC-U5b.

SMAW welding of weld joint WSD1-TL5-4B/F-19 located on PCMK west tower, lift 5, internal connection plates. Alternating welders were identified as 037998, 037779. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was QCA1, who was not a CWI. Welding variables recorded by QCA1 appeared to comply with WPS-B-T-3213-TC-U4c.

SMAW welding of weld joint WSD1-TL5-4B/F-8 located on PCMK west tower, lift 5, external connection plate to skin E. Alternating welders were identified as 066418, 066763. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was QCA1, who was not a CWI. Welding variables recorded by QCA1 appeared to comply with WPS-B-T-3213-TC-U4c.

Bay 10
This QA Inspector randomly observed the following work in progress in Bay 10:

SMAW welding of weld joint SSD1-TL5-1B-F-1B located on PCMK south tower, lift 5, internal connection plates. Alternating welders were identified as 056200, 040273. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Yuan Hui Gang (QCA2), who was not a CWI. Welding variables recorded by QCA2 appeared to comply with WPS-B-T-3313-TC-U5b.

SMAW welding of weld joint SSD1-TL5-1B-F-7B located on PCMK south tower, lift 5, connection plates. Alternating welders were identified as 057220, 057258. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was QCA2, who was not a CWI. Welding variables recorded by QCA2 appeared to comply with WPS-B-T-3313-TC-U5b.

SMAW welding of weld joint SSD1-TL5-1F-F-1B located on PCMK south tower, lift 5, connection plates. Welder was identified as 057259. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was QCA2, who was not a CWI. Welding variables recorded by

QCA2 appeared to comply with WPS-B-T-3313-TC-U5b.

SMAW welding of weld joint SSD1-TL5-1F-F-4A located on PCMK south tower, lift 5, connection plates. Welder was identified as 044504. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was QCA2, who was not a CWI. Welding variables recorded by QCA2 appeared to comply with WPS-B-T-3313-TC-U5b.

SMAW welding of weld joints NSD1-TL5-3B-F-2, 35 located on PCMK north tower, lift 5, external connection plates at skin E. Alternating welders were identified as 037996, 066155. QC was identified as ABF CWI Yang Yi Heng (QC2). Welding variables recorded by QC2 appeared to comply with WPS-B-T-3213-TC-U4c.

SMAW welding of weld joints NSD1-TL5-3B-F-3, 36 located on PCMK north tower, lift 5, external connection plates at skin E. Alternating welders were identified as 037840, 066361. QC was identified as QC2. Welding variables recorded by QC2 appeared to comply with WPS-B-T-3213-TC-U4c.

Blast Shop 1

ZPMC requested Caltrans personnel to perform visual inspections of east tower, lift 2 from the bottom of lift 2 at 50.3M to 65M elevation. At approximately 0045 hours on 8/17/10, following the initial blast cleaning of the steel surfaces, Caltrans QA Inspectors Paul Dawson, Mike Hasler, and this QA Inspector performed random visual inspections of these areas. ABF and ZPMC Inspectors were present and performing visual inspections of the areas noted above. ABF Representative Xiao Jun Peng (BABF) informed this QA Inspector that he would be documenting all weld repairs and would provide the QA Inspectors with a copy of the documentation. This QA Inspector visually observed several areas that required grinding to resolve visual weld spatter, arc strikes, shallow nicks, scrapes, rough edges of unground welds, and sharp edges of ground welds. These areas were clearly marked with chalk as either “grind” or “grind and perform magnetic particle testing (MT)” using the letter G or the letters G+MT. Approximately 10 weld repairs were observed and documented by this QA Inspectors and other inspectors. The locations were documented by BABF and a copy of the documentation was presented to this QA Inspector.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

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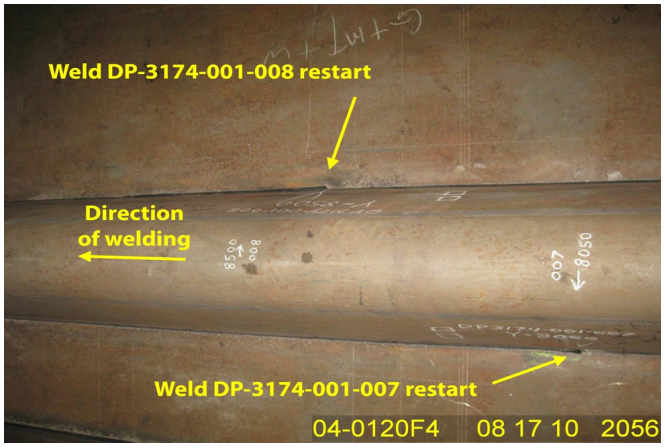

Summary of Conversations:

As noted above.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Micheal Ng, 159-2184-5703, who represents the Office of Structural Materials for your project.

Inspected By:	Goulet,George	Quality Assurance Inspector
Reviewed By:	Dawson,Paul	QA Reviewer